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Virginia Wildlife

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LINWOOD HOLTON, Governor

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Governor Holton

KEEP VIRGINIA BEAUTIFUL

COMMONWEALTH OF VIRGINIA
OFFICE OF THE GOVERNOR
RICHMOND 23219

Keep Virginia Beautiful Weeks
April 9-21, 1973

The period April 9-21, 1973, has been designated "Keep Virginia Beautiful Weeks." Falling as it does just prior to Historic Garden Week in Virginia, I urge all citizens, organizations and industries, cities, counties and communities to join in a gigantic statewide crusade to clean-up all litter on public and private property.

The scenic beauty of the Virginia countryside is one of our state's most cherished heritages, and there is no greater shame than its willful desecration by the discarding of litter on our highways, streets, and private property.

The voluntary efforts of public-spirited citizens, working with Keep Virginia Beautiful, Incorporated, to remove ugliness and add beauty, have brought to Virginia more honors, awards, and citations than any state in the nation, making the Commonwealth more attractive to industry and tourism, and more pleasing to all Virginians.

Virginia is the most beautiful state in America, and if our people continue to work together as a team to remove ugliness and enhance the quality of the environment, we can keep our state that way.

Linwood Holton
Governor

LETTERS

I Am An Informer!

ENCLOSED is an answer to the story "Be an Informer" (*Virginia Wildlife*, Feb., 1973). I would prefer if my name was not used, as it might cause harm to some of my family if the deer spotters knew who we were.

In the past 8 years, I have called the game wardens in my neighborhood so many times that now all I have to do is give the location and they know where to come.

I live out in the country near an open field on a State highway. It is unusual if we don't see a field full of deer at night, especially after we have had a rain. I find that this is one of the times that the deer spotters are out in large numbers.

It is nothing unusual for my neighbor who lives a mile away on a large farm to call at 3:30 a.m. to tell us the deer spotlighters have shot several times, or that the hunters are headed our way. We immediately notify the game wardens and then we get in the car when necessary to get license numbers.

On one occasion I was sewing when I heard a shot fired. I got up, looked out of the window, a man was firing his gun from inside his vehicle. I watched him shoot a deer, drive on down the road, turn around and go back up the road. He got out of the truck, went into the woods to get the deer. By the time he found the deer and got it into the field, I had the game warden here.

In our work of being "Informer" we have been very successful with the cooperation of the game wardens, the State police and the county police.

To be a successful informer you need to know your game warden, his telephone number at home, his car number and the telephone number of your police department. All of this information can help to stop the illegal activities that go on in the community.

(Name Withheld)

Bums in the Boondocks

HEARTIEST congratulations on your editorial, "Bums in the Boondocks," in the February issue of *Virginia Wildlife*.

We have been residents of the state of Maine for many years and have never known of such practices except in an occasional rare instance, which merited most severe and quite justifiable punishment.

Jane Durham
Hume, Virginia

Hunters Pay the Bill

I enjoy your magazine, and would like to compliment the editor on his answer to Ruth Stevens' letter to the editor in the January issue. It was a very appropriate response to this type of thinking. It seems that quite a few well-meaning people have the mistaken opinion that the taking of game has nothing to do with the conservation of game. Don't people realize that the hunters pay the bill for the costs of conservation?

Wesley J. Grove
Waynesboro

MELODY of SPRING

By SUSANNAH E. FELDMAN
Alexandria

DAWN quietly lifts her baton . . . a million silver sword shafts pierce the horizon and night's dark mantle is lifted. In miraculous splendor a new day is born and in its warm embrace God's pattern unfolds in a beautiful melody of spring.

Tall trees explode into curtains of eau de nile and the fragrance of lilac wafts the stage of nature's riverside amphitheater. New green grass carpets the aisle and wild violets graciously nod greetings to all. A honeybee toasts the occasion with nectar from a daffodil chalice and a dandelion curtsies to the greeting of a butterfly.

Sunbeams dance on a chandelier of dewy-white plum blossoms, and forsythias hold programs in slim fingers of gold. Camellias illuminate the scene with their soft pink glow and the floral boughs of the bridal wreath arc in tranquil harmony. Dogwood blooms, like clouds suspended, hover in sweet repose and cherry blossoms shower petal confetti on the tender breeze. Lily of the valley wait patiently, their delicate tiaras trembling like visions in the deep velvety shade: and a buttercup arrives late. The Judas tree raises slender limbs heavenward, in a plaid of mauve against a deep blue sky; and crocus, like grouped disciples, recline in orderly circles on the slope. Wisteria tumbles in cascades like fountains of lavender mist as it drapes a garden wall.

Breezes play on waters of azure silk, waves form the tiers of a skirt as soft foam weaves lace for a hem; and a cardinal dips and flutters to tie a scarlet sash at the waistline of Lady River's gown. Herring in rippling assembly gather at the water's edge to visit for the occasion; and a white swan in haughty silence glides into her place.

A robin in orange tuxedo officially opens the spring symphony with a lengthy carol—a catbird responds with a catcall from the wings and a swallow twitters. The mockingbird, aware of its prestigious role as the "all musician stand-in," nonchalantly airs its wings and surveys the audience with a critical eye. Hummingbirds hush as the curtains roll back, tulip candles dim, and a feathered orchestra bows. . . .

A blackbird's bugled salute shatters the silence, then fades like a gathering of tremulous raindrops in the air. A crescendo of sharp penetrating raps, softened by the velvet throb of a drumroll, is the woodpecker's solemn introduction. Harsh as the clang of a tambourine and as bold as an angry sea, the blue jay shudders the air waves as his notes flow forth. Mellow as autumn winds across a hill of heather, the brown thrasher's long organ carol lingers tenderly. Scintillating as champagne bubbles is the xylophonic voice of the Baltimore oriole. Resembling the notes of a cornet filtered through a cloud, a house wren excels in a bossy little ditty. In smooth virtuosity, the wood thrush's flute-like song searches for remembrances in the poems of the past. Gracious as the last waltz is the simple piccolo trill of the junco's song. Enchanting as the strains of a violin from a caravan at dusk, the notes of the titmouse are sadly searching. Surely straight from heaven, the indigo bunting's melodious bell notes fall like gifts of blue sapphires in a wine glass. Stirring as the sound of bagpipes on a distant shore, the sapsucker whines a hearty whirl. Resplendent as moonbeams on a crystal prism, the harpsicord melody of the starling's song is a prayer of reverence to a spring morn. Beyond tomorrow's rainbow soars the hauntingly beautiful refrain of the song sparrow's solo, bringing moments of sweet nostalgia. As laughter across a lake at twilight, the piano tinkle of the Carolina wren's song assimilates like dewdrops on a warm palm. In a dignified plunge of descending notes, the song of the warbler flows smoothly as an ebb tide over the sands; and with the intonations of a bass fiddle the eastern towhee's notes reverberate through the audience in a magnificent climax.

In exquisite balance, wave upon wave of sound encompasses all, and in a deluge of triumphant cadence the hillside echoes the jubilant happening as nature epitomizes her rhythms in an eternal melody.

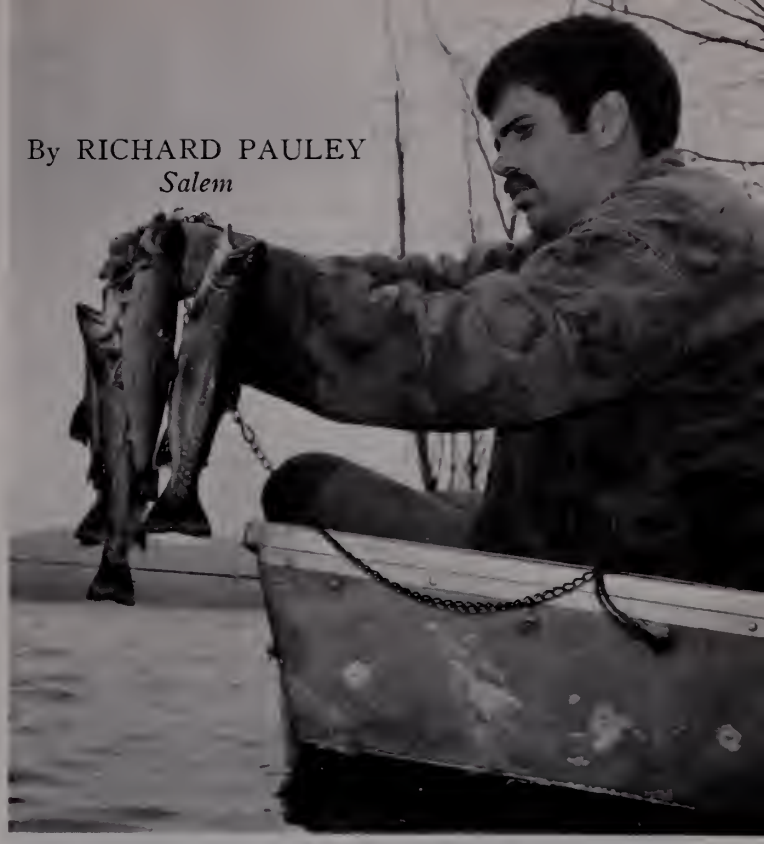
The flicker clapped for an encore, and the mourning dove nodded approval.

From this joyous rendezvous God's apostles pour forth the message, and in a glorious moment of ecstasy the melody runneth over . . . and there is a shining all about!

Mrs. Feldman's essay earned third prize in the 1972 Irene Leache Literary Contest, embracing North Carolina and Virginia.

BROOKIES
OF LAUREL BED LAKE

By RICHARD PAULEY
Salem



Author with limit of five fat brook trout.

"THIS just can't be the right place," exclaimed Ronnie Durham, as he gazed across the windswept surface of the blue mountain lake.

"It does seem a little unusual that there isn't anybody else here," I said, "especially since this is opening day of trout season."

"Well, if there are as many trout in this lake as there are supposed to be, it looks like we are going to have them pretty much to ourselves," Ronnie grinned.

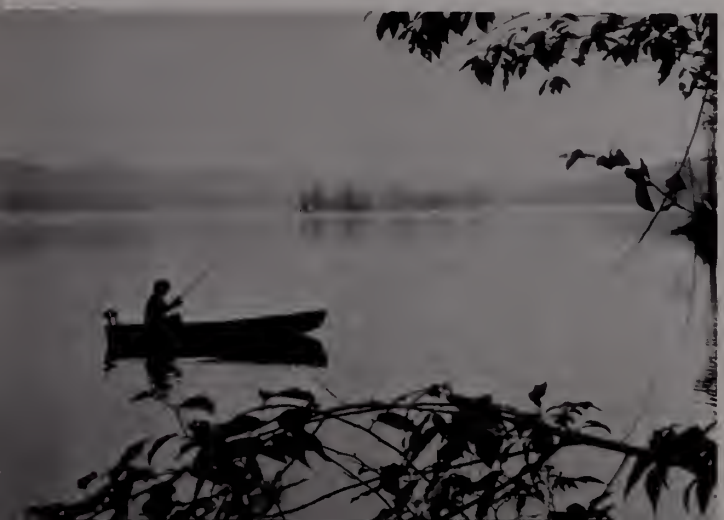
"Yeah . . . that is, if we can catch them," I questioned.

"Well, if you will stop standing there enjoying the scenery and help me unload the boat, maybe we can get some fishing in before the sun goes down," Ronnie kidded.

We soon got our gear in the johnboat that we had brought along, and after a short carry, made it to the lake shore. We eased out into the lake, and drifted toward a promising looking cove surrounded by ancient hemlocks. Everywhere the shore was guarded by tangles of laurel and rhododendron, and I pictured in my mind what a lovely sight it would be when these plants were in bloom. For a few moments I lost myself completely in the wild beauty around us, with no sound to disturb my thoughts except the calls of a pair of crows and the gusts of the cold April wind. We could have easily been in many remote areas of the country such as Maine, or even Canada judging by the terrain, but instead Ronnie and I were in a section of the Clinch Mountain Wildlife Area in Virginia's Russell County.

More specifically, we had come to fish Laurel Bed Lake, a 300 acre impoundment nestled at the headwaters of Big Tumbling Creek, the state's popular fee trout fishing stream. Even though the lake and the stream are relatively close to each other, the fishing pressure on the two areas differs greatly. Laurel Bed Lake was opened to fishing only in 1969, and was stocked exclusively with brook trout, although a few trophy-sized rainbows have since been added. Big Tumbling, on the other hand, is stocked on an almost daily basis, from the initial preseason stockings through the Labor Day weekend. The stream is stocked predominantly with rainbows, along with a good number of browns that add variety to the angling. The trout in the stream are well dispersed, but are relatively easy prey to the average fisherman. I do not mean to imply that there is anything unsporting about fishing Big Tumbling; far from it. However, often the choice pools are crowded and some of the wild flavor of pursuing the trout is given up in favor of limit catches. Today, a great deal of the state's trout fishing has lost that "wilderness experience," except for the rare waters that yet hold native brookies, and except for the unparalleled brook trout fishing offered in Laurel Bed Lake. There, on opening day in 1971, Ronnie and I discovered some of the most beautiful and uncrowded trout fishing that I believe can be found in Virginia today, and it is fishing set in a truly wilderness environment.

Small boats with electric motors are excellent to fish shoreline of Laurel Bed Lake.



Ronnie and I had drifted into the cove that I mentioned earlier, and dropped anchor, waiting for the twelve noon starting time. After what seemed like ages, and several cups of coffee, noon arrived and we hurriedly prepared our rods. Ronnie and I had done considerable research on Laurel Bed Lake prior to our trip, and had learned much in the process. The lake was indeed full of brook trout, and some citation catches (2 pounds and up) had already been recorded

in the short time that the lake had been open. However, the new impoundment was rich in natural food for the brookies and many local anglers swore that the trout in the lake just got caught more from boredom than hunger. Actually, all the evidence that we were able to find pointed to the fact that the fish were there, but catching them could be an entirely different story.

"Well, trout, I hope you are hungry," Ronnie said as he sent his tiny spinner arching toward a half submerged tree. I cast to the other side of the fallen tree, and received a strike almost instantly.

"Missed him," I sighed, "but at least they're hitting."

Of course I don't have to say what happened after my brave optimism, but we promptly went for over an hour without any sign of a strike.

"Gosh, these brookies may be impossible to catch after all," moaned Ronnie.

"I think I'll fish a little deeper," I said, as I added a second split shot to my four pound test line. "Maybe those fish are just staying put, and we've just got to get our lures down there to them," I added optimistically.

Left: Bill Gibbs with his first citation-size brook trout. Right: Three citation-size brookies taken in one morning's fishing.

"I hope you're right," said Ronnie, "because if we don't get some action pretty soon I'm gonna be tempted to break open that can of worms."

"We said that was going to be a last resort," I emphasized, but I knew how Ronnie felt. Here it was opening day, and we had driven well over a hundred miles to match wits with these brookies, and so far the trout were making us look like novices. Ronnie and I continued to fish, and casting and retrieving the lures was becoming almost mechanical. On about the second cast after adding the extra weight, I hung up and lost my lure. Undaunted, I put the same amount of weight back on and continued casting. About five minutes passed, and I had my lure almost beside the boat when a trout came from out of nowhere, grabbed it, raced under the boat, and pulled free. It all happened in a matter of seconds.

"Did you see that?" I shouted.

"Mmmmmm . . .," was the reply, as Ronnie was already busy tying on another split shot.

Ronnie again cast toward the shore, and after only a few turns of the reel set the hook into what seemed to be an excellent fish. Ronnie, too. was using four pound test line and he carefully played the trout toward the waiting net in my hand. When the time was right, I made a pass with the net, and lifted a beautiful twelve-inch brookie flopping into the boat. For a few moments we just sat there, amazed by the beauty of the fish and partly by the fact that we had broken our jinx.

"That is the most beautiful trout I've ever seen," exclaimed Ronnie.

"Oh yeah," I said. "Just wait until you see the one I'm going to catch."

We fished on, and Ronnie caught and released three more trout while I missed two good strikes.

"You're just not holding your mouth right," Ronnie grinned, as he added a second fish to his stringer.

I was feeling a little sorry for myself and really wasn't expecting the jolting strike that I received. I can honestly say that I have never had a trout anywhere hit harder than that brookie. I slowly worked the fish toward the boat, and Ronnie expertly netted him for me. The fish was almost a twin to Ronnie's and had all the vivid hues of the wilderness brook trout. I quickly took some pictures, then began fishing with new enthusiasm. I soon caught two more "keepers" and a smaller trout that I released, and within an hour from Ronnie's first fish we caught a total of fourteen trout, keeping three each.

"What do you say we try another cove?" Ronnie asked.

"Fine with me," I said, and soon we were anchored in a more sheltered cove, and catching trout even faster than before. After about two more hours of catching and releasing brookies, we each strung our fifth trout to limit out, and headed back up the lake toward the truck. In all, we caught thirty-four trout that day, and all but one of them were brooks, with the exception being a rainbow that had apparently gotten mixed in during the stocking. All our trout were caught on small spinners, fished deep and slow, and usually around underwater brush and tangles. Our first experiences at Laurel Bed Lake, we agreed, had been both challenging and rewarding. Although we had both caught our limit of five trout, we longed to tangle with the citation brookies that we knew inhabited the lake, and we vowed to return to try for a real trophy.

Ronnie and I have fished Laurel Bed Lake many times since that first outing, and we learn a little more each time, hopefully refining our angling technique. I can truthfully say that we have never been to the lake without catching brookies, and we are usually fortunate enough to catch a limit, although this often requires an entire day of hard fishing. Ronnie and I fish very hard, and this has proven quite rewarding since we have caught seven citation size brookies, with the largest being a 2 pound 14 ounce lunker that I took on a brown

Rooster Tail spinner. To show what a large brook trout that really is, the state record is only a 3 pound 2 ounce fish that was caught in 1964 in Quantico Lake. I am sure that a new state record will come from Laurel Bed, and now it just seems a question of time. Of course Ronnie and I would like to catch that record fish, and perhaps in the back of our minds that is one thing that makes us keep dunking lures hour after hour until our arms ache. There are other compensations as well, however. On one trip I took a 19½" rainbow that really put up a battle before I finally managed to net the three and a half pounder. Local authorities seem to think that it was one of the several large rainbows stocked in the lake as a bonus to lucky anglers.

The trout seem to run considerably larger during the warm months of summer and early fall, as the insects are at a peak population and are easy prey for the foraging trout. Also during the summer months, when the water level in the lake goes down, many of the trout seem to congregate in the shaded coves that have cold streams emptying into them. There are several such coves around the lake, and they are worth checking out when other spots fail to produce. Don't expect the brookies to be pushovers just because you may find them bunched up in certain areas. I have fished these tangled coves at times, and have seen hundreds of trout that refused to hit any of my offerings. However, the same spot may produce a limit the very next day, but there is just no sure way to predict such action. The trout seem to feed heavily at certain times, and not at all at others. It would seem that the more time a person spends fishing the lake, the better his chances of success, but I have seen this fail as well. On one outing I fished with Bill Gibbs, on his first trip to the lake. On that trip he caught not only his first trout, but the largest of the trip, a citation fish of slightly over two pounds. Not a bad way to launch a fishing career by any means. A similar incident took place on my father's first trip to Laurel Bed. On that trip, Ronnie and Bill Cochran (Outdoor Edition for "The Roanoke Times"), fished the lake using Ronnie's boat while my father and I worked the banks and concentrated our efforts on the numerous coves. The trout were feeding heavily in the coves that morning, and Dad and I quickly caught our limits while Ronnie and Bill had to really work for every strike. Such action is typical of Laurel Bed, but one never knows whether the trout will be feeding seriously or sulking in the shadows. Be prepared to fish harder and longer at Laurel Bed than you probably do anywhere else when fishing for trout, because a single brookie from the lake is ample reward for an entire trip.

For anglers across the state wishing to try this unique trout fishing, the lake is located just north of Saltville, within a few hours' drive of any point in the state. The fishing area is reached by leaving Interstate 81 at the Chilhowie exit (Exit 13) and proceeding along Virginia 707, north to Saltville. In Saltville, turn left on Virginia 91, then right onto 634 (Allison Gap Area). Follow this route until reaching route 613 where one bears to the left; then turn right on 747. This road will take you into the fishing area and past the concession point, where each angler is required to purchase a special one-dollar daily permit. This permit allows the angler to fish Laurel Bed Lake as well as Big Tumbling Creek, and the five trout limit prevails in both areas. Various fishing tackle and food, along with several boats for rent, are available at the concession area, and the prices are well within reason. However, a person renting a boat must be able to transport it several miles up to the lake, so car-top racks or a truck is almost a must. Anglers are free to use their own boats, but no gasoline motors are permitted on the lake. Only electric trolling motors or hand oars are allowed, and most people agree that this only enhances the wild beauty of the lake. Anglers are also prohibited from using minnows in the lake at any time.

Some fishermen have good success around trees that choke coves where small streams enter the lake.

For the angler wishing to remain in the area overnight, there are two campgrounds available. One is located in the concession area, and the other is found on the top of the mountain in a more rustic setting. Permits to camp in either area are available at the concession area, and cost two dollars per group for each night.

There is truly some fabulous fishing going untried at Laurel Bed, and I readily encourage every serious trout enthusiast to give it a try. Come prepared with plenty of lures and patience, and with a little luck you may tie into some trophy brookies, like few trout fishermen ever see in a lifetime.

Partners in Appreciation

By CARL "SPIKE" KNUTH
Fond du Lac, Wisconsin

THE temperature was supposed to reach the 40's again today. As I drove towards town I saw meadowlarks, grackles, and redwings, and even heard a killdeer. As I neared the marsh at the edge of town I just had a feeling that the swans would be there.

Town in this case was Fond du Lac, Wisconsin, located in the east-central part of the state, at the foot of Lake Winnebago (Fond du Lac is French meaning "foot-of-the-lake"). The marsh was Supple Marsh, a shrinking 240-acre wetland adjacent to the big lake, which serves as a resting and feeding place for the whistling swan on its long journey to its breeding grounds in the Arctic.

I pulled over to the shoulder of the highway and, sure enough, there in a small patch of open water were 19 of the beautiful white birds—the vanguard of up to 3000 or more that stop here each spring. I noted, too, that one of them was marked with yellow-orange paint, apparently by waterfowl biologists of the state it had wintered in.

It was hard to imagine that just a few days ago, these birds were nearly a thousand miles away on North Carolina's Currituck Sound, Virginia's Back Bay, or somewhere on the huge expanses of Chesapeake Bay that divides Virginia and Maryland.

As I stood in awe of the beautiful creatures, a flock of ducks streaked into view—heavy-bodied ducks that "parachuted" down to join the swans. There was no doubt from the first sighting that they were canvasbacks. "Cans" are a favorite of big-water duck hunters in the Winnebagoland area when open to hunting. I had noted through the years that these birds seem to arrive in Wisconsin about the same time each year, and realized too that they had likely come from the same wintering grounds.

Other than each being a state in the United States, I hadn't ever thought that Virginia and Wisconsin had much in common. Virginia, of course, is farther south than Wisconsin and both have around 4 million inhabitants. Wisconsin has some 56,000 miles of land area while Virginia consists of nearly 41,000 square miles. Wisconsin has many freshwater marshes, lakes, and forests, and borders on a big freshwater lake, while Virginia terrain varies from the Appalachians in the west to the coastal plain which borders on the salt marshes, the many fingered bays of brackish water, and of course the saltwater coast of the Atlantic Ocean.

It comes to mind that numerous waterfowl, water and shore birds with which Wisconsinites are familiar, spend the winter along these freshwater, brackish and salt waters of the South Atlantic Coast. The spring migration to their breeding grounds actually sends many of these birds on a northwesterly direction to the Great Lakes, thence through Wisconsin. The whistling swan travels a number of flight lanes, one of which carries it through Wisconsin and up into northwestern Canada. The same is true of canvasbacks, bluebills (scaup) and others.

To any stranger to Virginia (as myself), who happens to enjoy studying maps as well as the outdoors, Chesapeake Bay is a very intriguing-looking place. I remember as a grade school student, studying with fascination a map of the bay in a geography book—following its finger-like bays and numerous rivers and creeks. Oh, what a place it must have been, as many lakes and rivers in Wisconsin must have been, before being "blessed" by man's progress. I remember too, at the annual spring sports show in Milwaukee, the many outdoor movies that were shown, and always there were one or more concerned with waterfowling on the big bay—likely including a dog that carried the bay's name! Long before I had ever held a gun or gone duck hunting, in my mind, Chesapeake Bay and waterfowling were synonymous.

I know now that it is just another thing that Virginia and Wisconsin have in common. Like the Chesapeake and similar areas, Wisconsin has a similar "breed" of duck hunter that hunts the large lakes of east-central Wisconsin and the Mississippi River and parts of Lake Michigan. This type of hunter uses up to 100 decoys (more in years gone by), in an attempt to lure big-water ducks, such as the cans, bluebills, redheads, bufflheads and goldeneyes. In fact, Wisconsin duck hunters that regularly hunt the big water undoubtedly have learned their sport, directly or indirectly, from East

It was hard to imagine that just a few days before these birds were nearly a thousand miles away, very likely in Virginia

Photo by Ted Kremer

Photo by Ted Kremer

The swans' spring migration to their breeding grounds sends many of them northwesterly to the Great Lakes and thence through Wisconsin.

Coast gunners. The vast majority of original material seems to have come from, or at least centers around, the Chesapeake area. Decoys, decoy spreads, boats, and other equipment, as well as hunting methods, are strikingly similar.

The big lakes of east-central Wisconsin include Winnebago, Butte des Morts, Poygan and Winneconne, and are surrounded by numerous sloughs and marshes and connected by large and small rivers. The lakes themselves total over 160,000 acres of water which attracts all types of lake and puddle ducks as well as three kinds of geese.

Widgeon, redheads and ringnecks are among the earlier migrating ducks which ultimately winter in Virginia after passing through Wisconsin. The widgeon nests on the praries of Canada and may drop down into Wisconsin as it heads for the South Atlantic Coast. Some of the ringnecks (called ringbills by Winnebagoland hunters) that move down the Mississippi Flyway cut off and go east also, and a major route carries the redhead from Minnesota through Winnebagoland, especially Lake Butte des Morts, as it moves southeasterly to Chesapeake Bay.

The most common duck to move into the big lakes is the bluebill or lesser scaup. They rank second to the mallard in numbers in Wisconsin during migration, and peak flights arrive about the end of October. They arrive from the prairies of Canada, the Northwest Territory and Alaska, moving into the Mississippi Flyway before many of them turn east, heading for the Atlantic. Bluebills are the "good-time Charlies" that make up the bulk of the hunters' bag in Winnebagoland. They frequently "plow" right into the decoy spread without a look-see—quite a contrast to the normally wary canvasback.

The greater scaup, a similar species, is actually more common during spring migrations, but fair numbers of them will travel from northwestern Canada and Alaska

(Continued on page 10)

Spring on Winnebago.

 (Continued from page 9)

over Great Slave Lake, Lake Winnipeg and finally to Lake Winnebago, which is close to Lake Michigan, another favorite stopoff. Many buffleheads, goldeneyes, ruddy ducks and green-winged teal also pass through Wisconsin on their ways to Virginia. It may interest bird watchers to know that even a few white-winged scoters migrate through the area as do sanderlings, turnstones, black-bellied plovers and Bonaparte's gulls, on their respective journeys to Virginia!

Of all the birds that are shared by Virginia and Wisconsin, there are three that stand out. They are the aforementioned canvasback and whistling swan, and the mallard. Bob Personius, manager of the Horicon National Wildlife Refuge in Wisconsin, reports that band recoveries have been made in Virginia of all three species. "In fact," Personius said, "it can be said that mallards that nest in east-central Wisconsin commonly travel to the Chesapeake Bay area to winter."

Duck hunters in Winnebagoland, like their counterparts of Chesapeake Bay, are familiar with the wary circling of a flock of "cans" over a large set of blocks, before they drop suddenly into the midst of them. The cans, which nest in the prairies of Canada, as well as the Northwest Territories and Alaska, travel southeast across Wisconsin and have traditionally used Winnebagoland lakes and marshes, especially Lake Poygan, as a major rest stop before moving easterly into the Atlantic Flyway. In recent years, however, fewer flights have been moving through the area which is due, in part, to reduced populations caused by breeding habitat destruction. Dick Hunt, game biologist for the Wisconsin Department of Natural Resources at Horicon Marsh, noted that studies have indicated that many cans, if not most, are turning at about Winona, Minnesota, and moving south down the Mississippi instead of into the Lake Winnebago area. He said that in 1971 some 100,000 to 150,000 cans were estimated to have gathered on the Keokuk Pool. "It is likely, however, that they turned east from there and went to Virginia, although many undoubtedly went to the gulf." Probably the main reason that the cans are seemingly changing their pattern of migration is the fact that some of the big, shallow, fertile lakes that used to produce wild celery are carp-infested, choked with silt and polluted . . . no longer containing much of the can's favorite food. Years ago Lake Koshkonong succumbed and now Poygan and the others are.

In any event, it is somewhat of a sad sight in mid-November, when the first major Arctic cold front sweeps across the state, driving most birds on their way. I've watched huge rafts of cans get up, and nervously sweep up and down the lake, then climb for altitude and head straight east over the Niagara Escarpment which borders Lake Winnebago.

As sure as the Arctic high brings cold clear air, it also brings high-flying flocks of whistling swans, riding

The most common duck in Winnebagoland is the bluebill (lesser scaup).

the strong northwesterly winds to the east—seldom stopping in Wisconsin at this time. Often they are so high we can only hear them . . . a ghostly, melodic moaning. When we can see them, their white forms and beating wings appear as twinkling stars against a field of blue. Rarely, they bless us with a visit on the big lake, but then seldom for more than a day.

Generally, this signifies the end to the year's activities concerning Wisconsin's waters, even as the swans' arrival in spring begins it all. From Virginia through Wisconsin to the north and back again, their flight path —like an invisible string—seems to tie Virginia and Wisconsin together—making them partners, in a sense.

While outdoor-minded Virginians can enjoy and appreciate hunting and viewing waterfowl and shorebirds on their age-old wintering grounds, Wisconsinites are thrilled by their spring and fall exoduses.

Yes Virginia, there is a Wisconsin, and we have more in common than we might have thought. We are partners in appreciation.

Many of the mallards that nest in east central Wisconsin winter in the Chesapeake Bay region.

Hunting the Wild Turkey

By KIT SHAFFER
Game Management Field Coordinator

A NUMBER of years ago a friend asked me to explain to him the best method of killing a wild turkey. After my pal had departed, my then small son, who had heard the entire discourse, commented, "If you know so much about turkey hunting, why don't you bring one home more often!" Thus if the reader is wise, he will remember what I say rather than what I do!

Traditionally, hunting turkeys is a most exciting, rugged, time-consuming, and often exasperating sport. To hunt the king of the wild birds one must either be a trifle strange or extremely dedicated. You must be willing to give up normal life since in the pursuit of the wily wild turkey you will be forced to spend long days in the woods, and in all kinds of weather. Even in just locating turkeys, be prepared for being successful on only a small percentage of the days afield. You must be willing to climb out of a warm bed long before daybreak and, on occasion, sit motionless all day in a frigid turkey blind hoping somehow to call in the smartest of all game birds. You must be prepared to hike the mountains, wade the streams, desert your family, and still come home empty handed most of the time.

It is readily admitted that many of Virginia's turkeys are harvested, especially in the fall and winter months, through what might be called incidental or accidental kills. Probably the most common kills are those made while hunting deer, grouse, or quail. The turkeys are flushed over the hunter's head while he is on a deer stand, or his bird dog points a gobbler or hen squatting in a brush pile. By far the easiest and undoubtedly the least rewarding method is practiced by many hunters who drive constantly along the roads and trails in good turkey range hoping to catch the birds while they are crossing or feeding along the roads. We personally do not subscribe to this technique; this is a complete waste of a trophy and a wonderful outdoor experience. We recommend some form of calling of turkeys if you want to receive your allotment of kicks from the sport.

In discussing turkey hunting techniques it is necessary to differentiate between methods used during the spring gobbler season and those commonly followed in the fall of the year. We will describe the fall and winter hunting techniques first.

Fall Turkey Hunting

In order to hunt any species, you must know some of the facts of life, or the life history and habits, of the animal or bird you hope to harvest. Since the wild turkey is primarily a big woods bird, it is normally hunted in large tracts of mature and mixed forest types. The reasons are obvious—this is the territory where the bird feeds, rests and ranges. The forest habitat along with interior or adjacent fields and clearings provides the big bird with its basic needs. After locating the desired timber types it is fairly easy to ascertain whether there are turkeys in the area because the king of the woods leaves plenty of signs which show that he has been that way before. To a close observing woodsman the characteristic scratchings, tracks, and droppings are enough evidence to show that turkeys are using the range. Some sportsmen can approximate the relative age of the various turkey signs which they discover. Still another tip to a novice turkey hunter or to someone just starting to hunt turkeys in Virginia—obtain a record from the Commission of Game and Inland Fisheries on previous years' kills. This will increase your odds of killing a wild turkey. During recent years the counties west of the Blue Ridge and north of Roanoke have been the most productive areas.

One of the most important items to realize during the fall and winter hunting period is that turkeys are gregarious; a family group or flock is normally made up of the broods of one or more adult hens. Ordinarily there are also one or more adult king gobblers with or ranging near the main flock. Now, in order to call or hunt the turkey flocks, it is first of all necessary to "bust" or flush and separate the main gangs of turkeys. The farther you are able to flush the individual birds, the more your odds of being successful will increase. It is virtually impossible to call up an entire intact gang of turkeys, but individual birds when they are separated from the flock become lonely or panicky and will readily come to a call they believe to be the old hen. Old-timer turkey hunters stressed the importance of building a blind to call in the birds at or near the exact spot from which the turkeys were originally flushed. Thus, the main objective of the hunter is to locate a flock of turkeys and then by some means separate them. Thereafter, the hunter attempts to call the individual birds into a blind as closely as possible by imitating the rightful boss of the gang—the smart old hen.

Twenty-five years ago when the heart of wild turkey range was in piedmont Virginia there was a breed of dedicated turkey hunters who exclusively bred and trained dogs which could locate the flush gangs of turkeys. Ordinarily these were wild, wide-ranging pointers or setters or mixtures of other breeds that would locate turkeys, run them, and then, by excitedly barking, force the birds to fly in all directions. Next, the turkey dog would lie in the blind with his master and be available for retrieving should a turkey become crippled. Apparently this type of hunting with a specially trained turkey dog is not too common any more.

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However, it is still legal and rewarding to anyone who will take the time to train the dog.

Today, with so much emphasis placed on deer hunting and with large deer herds prevailing usually in the same range with turkeys, flushes of gangs of turkeys are commonly made by deer hunters or by hounds hunting deer in piedmont and eastern Virginia. Here again the hunting technique is similar to that already described. Locate and construct a blind near the site where the turkeys were flushed and then "talk turkey" with whatever kind of yelper you might prefer.

After the first week of deer season family flocks of turkeys are sometimes permanently broken up. Single birds or several away from the main flock are especially vulnerable at this time of year. We know many hunters, who specialize in hunting turkeys, that walk cautiously along roads, ridges, or mountain trails calling only on occasion. These sportsmen are usually successful in locating and calling up some of the lonely solitary birds.

A technique utilized in some of the states farther to the south is known as roosting turkeys. By this method the birds are located while and where they roost in the evening. By flushing them early in the morning the hunters on occasion are able to obtain a good flush for subsequent calling or yelping. Night hunters in search of raccoons or foxes frequently scatter turkeys from the roost and can call the following morning if they recognize the opportunity.

There are relatively few Virginia hunters skilled enough to stalk a flock of turkeys and get close enough for a successful shot. We have heard of some sportsmen who carefully stalk the mountain ridges and coves. On occasion the hunters are successful in locating flocks as they scratch in the leaves and move on up the mountains. The trick for the hunter then is to move cautiously into a position where the turkeys will feed into gun range.

These are the principal methods of locating, stalking and flushing the big birds. All of these are ultimately dependent on the hunter's being skilled enough to imitate the boss hen turkey and eventually calling one of the flock to a blind or other place of concealment. Obviously, to kill a wild turkey the hunter must first be able to master some type of a caller or yelper. There are numerous types of callers made from every imaginable type of material. Basically, most of the yelpers are some form of boxes, bones or diaphragms, made either by the hunter or manufactured commercially. There are a number of excellent callers readily available at your friendly sporting goods store which are fairly simple to master. There is hardly any excuse these days for the outdoorsman not to keep a yelper in his hunting coat. There are many long nights between hunting seasons when the technique can be mastered. As a hunter becomes more skilled, he often resorts to concocting his own private home-made yelper. Yelpers are normally made of combinations of bones, wood, rubber tubes, cow horns, hollow shells, etc. We have observed turkeys responding to calls on ordinary smoking pipes, and we have called up birds utilizing a disassembled ball-point pen. Making and testing your own caller just adds to the thrill of this wonderful sport.

Spring Turkey Hunting

Hunting for bearded turkeys during the springtime is a relatively new sport in the state of Virginia. It all started as an experiment over a decade ago and is already one of the fastest growing and most thrilling of outdoor experiences in the Old Dominion.

The techniques for hunting the adult tom turkey in the springtime vary somewhat from the methods utilized in the fall and winter. During the spring breeding season the gobbler is naturally highly motivated. At this time a good imitation call of a hen will usually result in the darnest exhibit that any sportsman has ever witnessed! The old boy will usually emit a loud gobble-gobble and come "a-strutting," showing off his beautiful fan and feathers. It's enough to start the hunter's heart to beating wildly and often results in a missed shot or other "goof ups."

To hunt gobblers in the springtime be prepared to lose a lot of sleep because the gobbler starts his love-making at daybreak—usually around 5:00 a.m. at this time of the year. This means you must leave your warm bed around 3 o'clock or soon thereafter, depending on how far you must drive or walk to reach your gobbling territory!

It is helpful to scout or locate the gobblers prior to your hunting trip. This is accomplished by driving or hiking through turkey country at daybreak and listening for the give-away gobbles. The old bird won't be too far away from his territory unless, of course, somebody else has bagged him!

On some mornings, often if it is very cold or raining, gobblers aren't in the mood for love-making. On occasion they can be made to sound-off by imitating a great horned owl, by slamming a car door, or merely honking the car horn.

After the gobbler is located the sportsman must then use his stalking and yelping skill to call in the wily old bird. Each big bird varies somewhat in his reaction, so the hunter must "play it by ear."

Some helpful hints for spring gobbler hunters would include these: (1) Don't move up too close to the gobbler—let him come to you; (2) don't call or yelp too much—he'll locate you readily; (3) hide yourself and don't move whenever the old boy arrives—he has remarkable eyesight; (4) wear camouflage clothing and cover your face and hands; (5) allow the gobbler to get in range and aim for his head and neck. Happy hunting!

VIRGINIA WILDLIFE ☆ ☆ ☆ ☆

CONSERVATIONGRAM

Commission Activities and Late Wildlife News . . . At A Glance

BOWHUNTERS BAG 673 WHITETAILS. Virginia bowhunters managed to bag a record total of 673 deer during the past archery season, a record for the state. Gun hunters enjoyed a moderate increase west of the Blue Ridge, but bowhunters nearly doubled their take with a total of 398 animals. The kill in eastern Virginia showed a small increase to 275 animals. Rockingham was the top bowhunting county with 48 deer bagged there, but archers were nearly as successful in Grayson County where they downed 48 deer. In the Warwick-Hampton-Newport News peninsula area bowhunters accounted for 42 deer and in Patrick County 41 were bagged. A total of 36 counties reported no archery kills. Bowhunters in Virginia, estimated in 1969 to be 22,500 strong, came closest to the current record in 1970 when they managed to tag 507 deer.

THORNTON PRESENTED SPECIAL AWARD. J. E. "Ned" Thornton, Supervising Game Biologist for the Virginia Game Commission's northern Virginia region, was recently presented with a special award from the George Washington National Forest in recognition of his many years of effort in behalf of wildlife on the Forest. Forest Supervisor Robert W. Cermak presented the laminated walnut plaque during a short ceremony in Harrisonburg. In making the presentation he cited Mr. Thornton's dedicated effort in helping make the cooperative forest wildlife program the success it is today, a model being emulated by several other states. Thornton has been employed by the Game Commission since 1940 and has spent most of those years working in that section of Virginia which includes the George Washington National Forest.

AMBLER NAMED GAME BIOLOGIST AIDE. Former Game Refuge Supervisor Beverly Ambler of Staunton, who until recently was in charge of the Goshen-Little North Mountain Wildlife Management Area, has been promoted to game biologist aide. He will now assist the Game Commission's forestry and lands section relative to purchase and development of wildlife management areas around the state. Ambler joined the Game Commission staff in 1967.

COURT UPHOLDS ROLE OF HUNTING IN CONSERVATION. United States District Court Judge Charles R. Richey has dismissed a lawsuit that sought to stop public hunting on three federal wildlife areas, thus giving a landmark victory to the nation's sportsmen in hunting's first major court test.

The suit, filed by the Humane Society of the United States, challenged the decision of C. B. Rogers Morton, Secretary of the Interior, to allow public hunting on three refuges in New Jersey, Maryland and Virginia. The Humane Society attempted to prove that Morton did not adequately substantiate the need for the hunt nor did he consider alternate methods of herd reduction such as live-trapping and relocation or cropping by professional hunters.

In its effort to prevent future hunts, the Humane Society argued that public hunting on these refuges violated the principles of sound wildlife management and the purposes for which such preserves were established.

However, when the Humane Society had rested its case, Judge Richey ruled that they had failed to prove that Secretary Morton had abused his discretionary power in authorizing such hunts under State Game Commission control. The judge stated that, in his opinion, "Public hunting is a form of public recreation for which the refuges in mention were established." He further flatly stated that public hunting was not inconsistent with the principles of sound wildlife management.

The trial was observed with great interest by many conservation organizations, all of which were aware of the precedents it would set for future legal action. It is not known at this time whether the decision will be appealed to the U. S. Court of Appeals, but it was noted that Judge Richey's decisions have been reversed only twice in his judicial career.

FROZE

Text and Photos b H
Chief, Ed

THE grand assortment of plants and animals of all descriptions that graces the walls and shelves of Richmonder E. M. Andrews' workshop would make you think he had unraveled the secret of eternal life. There are delicate mushrooms looking as if they were freshly picked, bullfrogs, turtles, snakes, plant materials, mammals, birds, and even a tobacco worm either just lying around or carefully mounted on bases looking for all the world as if they were in some sort of suspended animation. In reality, they have been perfectly preserved without incisions or chemicals by a simple yet painstaking process called "freeze-drying."

"I first became interested in freeze-drying a little over two years ago after watching some freeze-dried coffee commercials on T.V.," Andrews says. "If all the water could be removed from a cup of liquid coffee, why not from an animal whose body is approximately two-thirds water," he reasoned. After asking a lot of questions and taking a trip to the Smithsonian Institution where a freeze-drying unit was in use preserving animal specimens, he managed to put together a small freeze-dry unit of his own.

His first machine consisted of a 10-gallon paint spray can as a specimen chamber, a junk-yard vacuum pump, and a damaged deep freeze box coupled together with a lot of pipes, valves and fittings. "After several failures I almost gave up," Andrews says, "but I finally arrived at the right combination of vacuum and temperature to perfectly preserve three large green tobacco worms. I reasoned," he said, "that if I could preserve a fragile soft-bodied creature like that, other specimens would be easy." The worms are indeed a wonder in themselves, looking for all the world like they should start crawling any minute, but they were only the first of a long line of remarkable specimens Mr. Andrews was to prepare.

"I have freeze-dried all kinds of animals, birds, snakes, fish, frogs, strawberries, peaches, mushrooms, steaks, flowers and all types of insects," Andrews relates. He has even freeze-dried a variety of internal organs as a demonstration for M.C.V. officials who may be interested in using such material as type specimens and for classroom instruction. These pleasant-to-handle materials, which can even be dissected, would certainly revolutionize many biology and medical classes where students previously wrestled with smelly and messy specimens preserved in Formalin or alcohol.

The freeze-drying process itself is relatively simple. An animal is frozen in the desired position and then, without thawing, is placed in a frozen chamber from which all air can be pumped. The water within the animal or plant's own tissue then creates a pressure which gradually forces the water molecules out into the vacuum where they are whisked away by the pump and removed. Those who have seen the T.V. commercial which inspired Mr. Andrews watch this happen by speeded up photography in a matter of seconds. In Mr. Andrews' current unit the process takes from one to

If you encountered this baby along some woodland trail it would surely start the old adrenalin flowing. This rattlesnake is one of the best examples of the freeze-drying art.

Even though Andrews insists that big fish are not very practical candidates for freeze-drying, one cannot keep from being impressed with the realism of this eight-pound bass.

N LIFE

RRY L. GILLAM
n Division

Resplendent in bright green skin with orange spots, this tobacco worm looks as if he had just paused between bites.

Typifying the potentials of the process is this mount of toadstool and toad complete with insect in his mouth, all freeze dried.

three weeks or more, depending on the amount of water in the specimen.

"With the knowledge gained from the small unit, I decided to construct one two feet in diameter and three feet long so that I could handle most small- to medium-sized animals," Andrews relates. The unit includes the main insulated freezing compartment with its vacuum-proof door, a condensation chamber, two vacuum pumps and assorted tubing, valves, thermometers and other accessories. "Purchasing the parts proved to be quite an ordeal," Andrews says, "and without some extraordinary interest on the part of certain individuals at some of the suppliers I wouldn't have been able to get what I needed. Most part suppliers rely on part numbers and model numbers, it seems," he says, "and when you are working on a piece of equipment that has never been built before, the system doesn't work very well." The equipment is housed in a metal building in his back yard.

The principle that makes the whole freeze-drying possible is the fact that ice changes directly into vapor at the .03 pounds-per-square-inch pressure in the chamber, which is about as close to a perfect vacuum as is possible to get with this type of equipment. Since the vaporization takes place on the outside first, gradually working its way deeper into the specimen, there is little chance for the tissues to collapse or shrink. When the specimen quits losing weight, it is totally dehydrated and can be placed on the shelf indefinitely without further treatment. Since decay organisms require moisture, they cannot attack the freeze-dried specimen as long as it is kept dry. Soaking freeze-dried materials restores them to fresh condition. "I have freeze-dried a steak until it was just a brown chip," Andrews says, "then soaked it in water until the blood started running out of it again, put it on the grill and it would taste almost like fresh meat." A number of companies are preparing foods for hikers and campers in this manner, making them lightweight, tasty, and easy to prepare.

Although any organic material could conceivably be preserved by freeze-drying, the method excels on soft and extremely perishable specimens. Among Andrews' more interesting "trophies" are freeze-dried mushrooms, slugs, strawberries, brains, eyeballs and tissues impossible to preserve by any other means. Frogs, snakes, salamanders and turtles are more faithfully preserved by this method than by taxidermy or castings. What's more, they are slightly flexible, making it possible to handle them carefully without damage. The freeze-dry process also preserves most of the natural color, whereas other methods usually bleach or fade the specimen.

"The type of thing people most often bring me to freeze-dry is a 30-pound rockfish or some such thing," Andrews said. "Although it is technically possible to freeze-dry an elephant if a big enough chamber were

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NEWEST LAKE

By PETE ELKINS
Fredericksburg

THE gate was closed when we arrived a few minutes before daylight. Others were there before us, waiting in warm cars for the caretaker to unlock the gate and officially open Rockbridge County's Lake Willis Robertson. It was frosty that Saturday morning as we waited, a group of cars huddled in the blackness, an occasional cartop boat a blacker silhouette against the graying dawn. The wait was short. When the caretaker arrived, he briskly opened the long iron gate. Like barely restrained Kentucky two-year-olds, the clump of cars strung out down the curving road to the launching area.

All omens were good. As the cars braked beside the lake, several swirling wakes arrowed away fom the shore as the nearest bass got their first hint of man, the angler. The dawn stillness disappeared in a chorus of metal and man sounds as the fishermen scrambled to get boats into the water. In a watery Le Mans start, boats fanned out into the lake, blackly-cold and still in the dawn. Mist shivered and swirled around the boats, but the anglers' only concern was with what awaited their casts.

First casts met with explosive reactions. In fact, two bass hit on the first two casts of a yellow spinnerbait.

Frozen Life (Continued from page 15)

available," he adds, "I have found that specimens over 5 pounds aren't very practical." Fish, deer heads, raccoons, foxes, ducks, pheasants, and other game species normally mounted by sportsmen can probably be preserved by ordinary taxidermy cheaper and in some ways better than they could by freeze-drying. When it comes to specimens like frogs, song birds, snakes, mice and other small animals, only the museum taxidermist can even compete. "An 8-pound bass contains some 5 pounds of water," Andrews said, "so you can see the magnitude of the drying operation. A cardinal only contains about 4 ounces, so you could do 20 cardinals as easily as one bass," he emphasized.

The eyes of freeze-dried specimens get a dry, glazed look, so glass eyes must be used for life-like sparkle and luster in most cases. Fish and amphibians whose skin is normally wet must be treated with varnish or shellac to restore a life-like luster.

Andrews' experiments have not been without their humorous moments also, like the time he tried to freeze-dry the baby skunk! It seems, the first thing to vaporize was the scent, which contaminated all the other animals in the chamber at the time. "When I came home that night and went out to my shop the odor coming out of the vacuum pump exhaust would knock you down," Andrews recalls. "I had to shut the whole thing down and take that little rascal out and bury him pronto," he chuckles. A liberal dose of perfume got the rest of the mess in tolerable condition, although some of the animals still retained traces of the scent. Then there was the time he came home to find the electricity had been off since early afternoon. He rushed to his machine and unfastened the dripping door to find all his carefully posed frozen animals lying prone, standing on their noses, and in other ungainly attitudes they reached as they thawed. A quick reshaping and return to the freezer when the lights came back on revived all so they could again be placed in the chamber.

Andrews' machine is, at last count, one of four such machines in the country. The Richmonder says, however, that anyone contemplating building his own should have plenty of cash and be prepared for some failures before success is achieved. He says he has several thousand dollars in materials in his apparatus and "so many hours of labor I can't count them."

There are other pitfalls for the would-be freeze-dry entrepreneur—legal ones. To do such work for hire requires a state and federal taxidermist's license. This entitles the licensee to prepare game animals, game birds, fish, and unprotected species (of which there are few). In order to get into museum-type work involving songbirds and other protected animals, state and federal collecting permits are required. This applies even if the specimens are found dead. Accurate records must be kept of all animals processed.

The Game Commission, along with many others, are extremely interested in the potentials this process has to offer. They have engaged Mr. Andrews to prepare some fish, snakes, and birds on an experimental basis with excellent results. The method should revolutionize displays and teaching aids and may even make possible the loaning of real animals to schools for classroom instruction. In this age of environmental awareness, we need all the teaching materials we can get to help people understand how this world's ecological processes work. Bold pioneers like Mr. Andrews may help make it all possible.

Although many bass measured less than the legal 12 inches, they were eager to strike small, dark "Hellbenders" and "Cisco Kids."

That was to be the pattern for the next few hours. Virtually every type of lure caught bass. Experienced bass fishermen gaped as three or four free bass escorted a hooked companion the last few yards to the boat. Largemouth bass were seemingly everywhere, displaying unnatural disregard for man or boat. At times, more than a dozen bass were visible under the boat.

If there was a fault to the morning, it was the disappointingly small average size of the hooked bass. Larger fish could occasionally be seen and a few were taken; yet, most of the bass were in the 9-11 inch range. It is illegal to keep bass under 12 inches from Robertson Lake.

Small size did not detract from the fighting qualities of the bass. Taken on light tackle, the largemouth put on the show that makes the bass America's most popular game fish. Strikes were hard, followed by rapid sprints, punctuated with water-frothing leaps. In a matter of two or three hours, some fishermen had hooked over sixty bass. The only tactic required for success was to move the boat a few more yards down the shore to new and undisturbed bass.

Inevitably, the spectacular action slackened. Fishermen that once were happy with one bass per hour on other waters, now looked quizzically at their boatmates if ten casts went untouched. As the sun rose, the mist dissipated, and the bass sought deeper water to avoid the new light. Shadowed shoreline continued to produce well, but by midday new tactics were necessary.

Barker Stein of Waynesboro reaches for a scrappy largemouth.

Trolling small dark-colored Hellbenders or Cisco Kids attracted the bottom-hugging bass. Many of the bass were well away from shore. The angling crowd peaked by mid-afternoon. More than a dozen boats prowled the surface, while numerous men, women, and children fished from the banks. By late afternoon, it was obvious that the bass had learned a great deal about man, the angler.

Sunday morning found the gate open early, but the crowds were gone. Lake Willis Robertson was quiet in a warmer morning. The thrill was gone for the opening day clan. The easy fishing and stupid bass were a figment of yesterday's imagination.

Still, the bass were there, behaving in a more normal manner, but there all the same. The only thing missing was the crowd and I didn't mind. A pair of ruddy ducks nearby didn't seem to mind either.

Commission's newest lake, Lake Robertson, opened amid autumn splendor in October, 1972.

The first season was a short one, as the cold nights of November forced the bass into deep-water haunts. Soon December brought the fishing to a frigid halt.

This spring will find the bass larger and perhaps craftier. On some days, it will be an easy task to coax a limit of five largemouth from Lake Robertson's clear water. On those days, stop just a minute before snapping that last bass on your stringer. Can you really take care of five bass without waste? Wouldn't you rather catch him again some day when five bass don't come so easily? The lake was named in honor of the late Senator Robertson, one of Virginia's most dedicated conservationists. Slipping a healthy bass back into the Senator's lake is an easy way to say thanks.

Gray Squirrel Nesting Study

By JOE L. COGGIN
Game Biologist Supervisor

Data collections for a squirrel nesting study began in June, 1967, for biological information needed for recommending opening and closing dates for hunting squirrels. This is not the only consideration for establishing the proper time to hunt squirrels, but it is of primary importance when thinking about harvesting female squirrels that are still nursing young.

When we first started this study, I wrote an article for *Virginia Wildlife* that discussed the pros and cons of early and late squirrel seasons. That article was really an introduction to this study. The study is now completed.

Our objective was to determine the weaning dates of the gray squirrel for the three physiographic regions of Virginia. This was done by placing fifty nest boxes at twelve areas throughout the state.

The circles on the accompanying map indicate the locations of nest boxes.

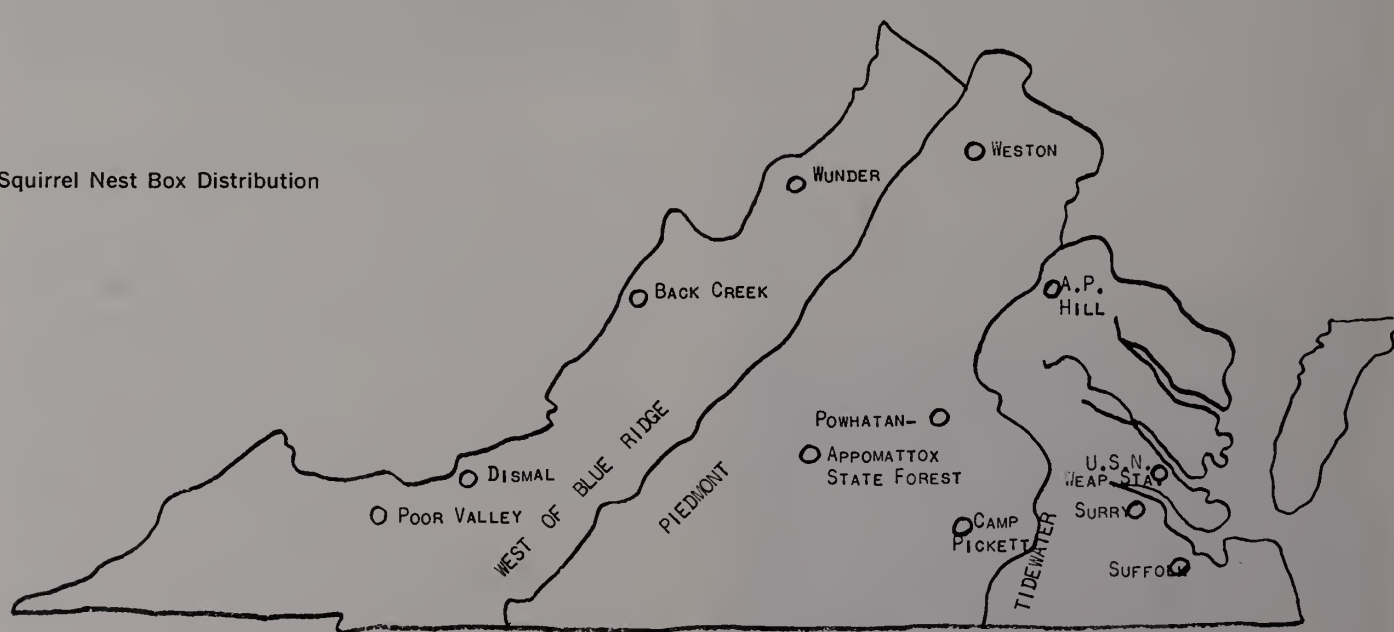
There are four areas in each of the three major physiographic regions. The system for choosing each area to be checked was simply to locate four areas in each region that had good squirrel populations, and try to scatter them throughout the region. This job, as well as setting up the boxes and collecting the data, was done primarily by district biologists and game refuge supervisors.

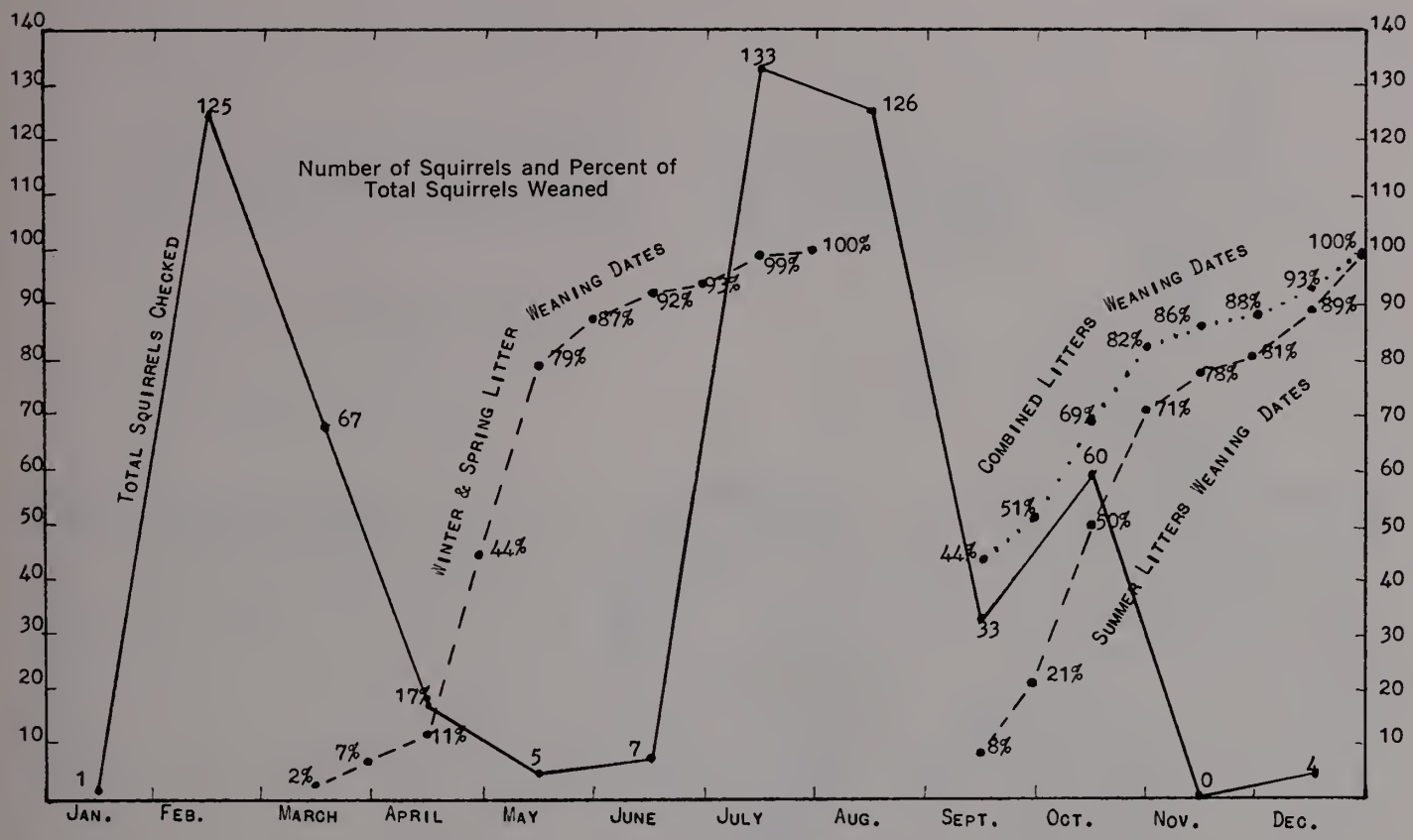
The nest boxes were visited once each month by biologists and game refuge supervisors who had been trained to age very young squirrels. Generally speaking, this is done by measuring the length of the hind foot, total length of body, and especially the length of the whiskers of the young squirrel. It was easy to establish the date of birth once the age was determined. Once aging revealed the date of birth, seventy days was added to determine the weaning date for that litter. This is the method worked out by Uhlig, 1955, and Bakken, 1959.

Results

We may as well report the bad news first and get it out of the way. The "mama" squirrels west of the Blue Ridge Mountains obviously didn't consider our nest boxes a proper place for rearing their young. They would build nests in the boxes, cut mast in the boxes, gnaw on the entrance, rest, play, and do almost everything except what the box was intended for—having a litter! Flying squirrels? Plenty of them, but the gray squirrels would have no part of it. Failing in efforts to obtain data west of the Blue Ridge for almost two years, we moved the Back Creek (Bath County) nest boxes to the V.M.I. campus at Lexington, Virginia. This was done with the cooperation of wildlife professors Col. John Reeves and Col. Louis Hundley, who supervised two students on a project to determine why gray squirrels would not use the nest boxes for having their young. The campus had a high squirrel population, but there were no litters found in the boxes. The addition of ten extra boxes made of oak (the others were all cypress) failed to attract squirrels for nesting purposes.

Squirrel Nest Box Distribution





So, we gave up west of the Blue Ridge without establishing a firm reason for the failure.

The situation was much better in the Piedmont and Tidewater regions of the state. During the study, data were collected on a total of 214 litters east of the Blue Ridge. Weaning dates were determined on 578 young squirrels. Fifty-two percent of the young were males and forty-eight percent were females. The average number of young per litter was 2.4 for winter and spring litters and 2.9 for summer and fall litters. The differences in litter size were slight throughout the study between the Piedmont and Tidewater regions.

The weaning dates referred to in this article are based on an average of the entire four-year period. This was necessary because the average dates the squirrels were weaned was not the same each year at any given location. It was not the same between locations in any region, nor was it the same between regions. However, when the data is combined we have a pattern of weaning dates which are the dates we use as the percent of the squirrels born that will be weaned by a given date. Since squirrels are so consistent at being inconsistent, this combined average is the best figure to use.

The following graph combines the months the squirrels were born and the percent of these squirrels that were weaned by any date, so these two factors can be seen as they relate to each other.

The solid line on our graph shows the total number of squirrels born during each month.

There are two broken lines on the graph: one begins on March 15th and ends on July 30th. The points plotted along this line indicate the percent of all those squirrels weaned by the dates shown. They were born in the months of December through May. These are the winter and spring litters: a total of 219 squirrels.

The summer and fall litters were all born in the months of June through October. The weaning dates of these squirrels are shown by the broken line which begins September 15th and ends on December 31st. There were 359 squirrels born during this period. No litters were found during the month of November.

The dotted line shows the percent weaned by month with both litters combined. This, of course, is the entire year's production.

Notice that these last three lines are plotted in approximately two-week intervals. We can see from the graph that one-half of the summer and fall litters were weaned by October 15th and 71 percent by October 31st. We can look at the dotted line and see that 69 percent of all squirrels born during the year were weaned by October 15th and 82 percent were weaned by October 31st.

By following this procedure one can locate the percentages weaned during any two-week period throughout the year.

It must be made clear that this is not the only data needed for setting a squirrel season, but it is one important phase of the life history of the squirrel and must be considered.

FLOWERING DOGWOOD

By ELIZABETH MURRAY
Dept. of Biology, Univ. of Virginia
Charlottesville

Illustrated by Lucile Walton

VIRGINIA was surprisingly late among the states in choosing her state flower. The campaign to provide an emblematic flower for each state was started at the Chicago World's Fair in 1893. Many states made their selections shortly thereafter, but the question did not come up in the Virginia legislature until the second decade of this century. At that time a great many people wanted the Virginia creeper, because its name, of course, immediately brings the Old Dominion to mind. However, someone objected that Virginians were not climbers, while Virginia creeper was, and in the deadlock that followed, advocates of the flowering dogwood offered it as a compromise. As it was almost everybody's second choice anyway, it was finally adopted. Today it is also the state flower of North Carolina (they used to have a daisy), and the Pacific dogwood, *Cornus nuttalli,* is the province flower of British Columbia.

The Dogwood family, Cornaceae, is not a very large one, around a dozen genera and about a hundred species. It is widespread in North America and temperate zones of Asia. There are some members of the family in the tropics, and in Europe it is represented only by the genus *Cornus.* The family contains mostly woody shrubs and small trees, occasionally herbs, nearly all with opposite leaves. Flowers tend to be small and insignificant with their parts arranged in twos and fours.

Flowering dogwood is technically something of a misnomer, since the parts which we admire so much as "flowers" are actually four large petaloid bracts. These start as the covering of the flower bud which develops in late summer and persists through the winter. The following spring the bracts indulge in a second-growth period. They enlarge tremendously, become very petal-like and gradually open out, forming what is loosely referred to as the "flower," with the real flowers looking like a bunch of stamens at the center. The bracts are greenish as they first open and then become pure white. The weather-beaten winter portion of the bract is borne at the apex of the new bit and as it wears off, a very characteristic notch is formed, with a dark scar at the base. One author dramatically calls this scar "an insignia of service, the sign of work well done," referring to the job of protecting the bud during the winter.

The flowers are followed by clusters of berries—technically drupes—which turn a brilliant red in the fall and are relished by many birds. The opposite leaves are simple, ovate, with a tapering, pointed tip, and a rounded base with a short leaf stalk or petiole. Although in the more northerly parts of its range, *Cornus florida* sometimes occurs just as a shrub, in our area it grows as a tree which may be as much as forty feet high. It grows very slowly and the branches are twisted and irregular, giving even young trees a rather gnarled appearance.

Most people admire the form of the dogwood, but there are old legends in which this shape is meted out as a punishment. A chief with four beautiful daughters announced that he would barter them for the richest furs he could get. To chastise him for such greed, the gods turned him into a low, twisted tree, the four beautiful bracts representing his four daughters. Another legend tells that the dogwood used to be a very tall, straight tree until the Cross was made from its wood, whereupon it was turned into a low, tortured tree. The bracts here represent the Cross, with the notches as nail holes and the dark stain the blood from Christ's hands and feet.

Cornus florida is found, mainly in acidic woods, throughout the eastern states from Maine to Florida and west to Ohio, Indiana, Illinois, Missouri, and Kansas. While it is usually white, there is a pink form, *var. rubra,* which is occasionally found in nature, and which is heavily encouraged under cultivation.

The Pacific dogwood, *Cornus nuttalli,* is a larger tree 40′ to 50′ high with even more showy bracts. A specimen of this and also of the band-tailed pigeon was sent to the ornithologist Audubon by Thomas Nuttall. Audubon gave the dogwood the specific name of *nuttalli* after his botanist colleague, and included it in his well-known picture of the band-tailed pigeon.

Cornus sanguinea, one of the commoner European species, is known as the cornel, and *C. suecica* as the

Flowering dogwood, Virginia's State flower.

dwarf cornel. The former grows on calcareous soils in England and other parts of Europe and has shiny dark red branches from which it gets its specific name. Virgil refers to javelins made of myrtle and cornel wood which pierced the body of Polydorus, king of Thebes, when he was slain by his father. The Greeks apparently had to instigate a special feast at Lacedaemonia to appease Apollo because he became so angry when they cut down the cornel trees on Mount Ida, presumably to make their javelins. Romulus, when he wanted to extend the boundaries of Rome, hurled his spear as far as he could to mark the extension permitted by the gods. It stuck into the ground on Palatine Hill, and from the cornel-wood handle grew a fine tree said to foreshadow the greatness and strength of the Roman state.

The wood of dogwood is indeed strong. In addition to classical spears, it has been used to make goads for animals, hence the name "pricke-timber woode." Our flowering dogwood is used for bearings, tool handles, engravers' blocks and shuttles for looms. Charcoal made from the wood is excellent for gunpowder.

Extract from dogwood bark has been used medicinally in the place of quinine. The bitter principal which is obtained can be used to combat malarial fever. There are some reports that it is effective as a general tonic and assists a failing appetite. A reddish-tan dye can also be obtained from the bark.

Washing mangy dogs in extract of dogwood is said to be an effective treatment, and the common name could have come from this property. In Europe species of *Cornus* are sometimes called Hound's berry. A more likely explanation for the name is that it comes from the word *dagge* or dagger because of the wood's usefulness in making spears. The generic name *cornus* comes from the Latin word for horn, and *florida* means 'flowering' rather than referring to the state of Floida. The name 'skewerwood' is also sometimes used, since the hard wood is excellent for butchers' skewers.

With these many uses in both past and present, perhaps the main function of the flowering dogwood today is to provide us with a mighty pretty tree in springtime. By the end of March the bracts are starting to open, although they are usually still greenish at this time. In April the "flowers" reach their peak of whiteness and beauty. If the weather does not become too hot too quickly, they may continue blooming through the end of May and into the beginning of June.

Know your WARDENS

Text and Photos by F. N. SATTERLEE
Information Officer

CARLISLE T. BLAND
King & Queen County Game Warden

"Tat" Bland was born in Shanghai, Virginia, a town named by his grandfather Bland, the first postmaster. His farmer-merchant father raised general crops, and his son to appreciate and respect the outdoors, fishing, hunting and things wild.

After graduation from Pleasant Hill High School in Shanghai, Tat worked for a time in the navy yard in Portsmouth, Virginia, and then in 1943 enlisted in the U.S. Army. He served three years, most of which was in the 34th Division of the 133rd Infantry in Africa and Italy.

Following his discharge he worked at a variety of jobs and in September of 1949 joined the Game Commission as a warden assigned to King & Queen County.

Working with wildlife and people and doing this in the outdoors is the most rewarding aspect of the job for Mr. Bland, who feels that his decision to become a game warden was greatly influenced by what his father and grandfather taught him.

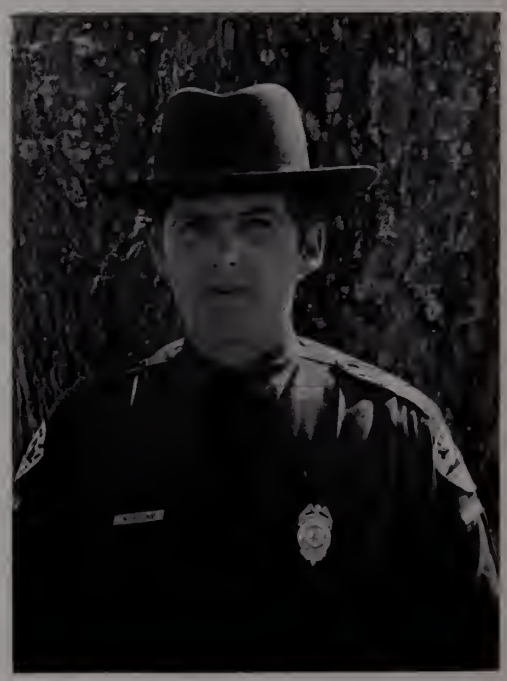
He is very active in the community and is past president of the county Ruritan Club, past director of the county Civil Defense organization, and past High Priest of Royal Arch Masons. Tat and his wife, the former Majorie Timberlake of New Kent, have five children and they live in Shanghai.

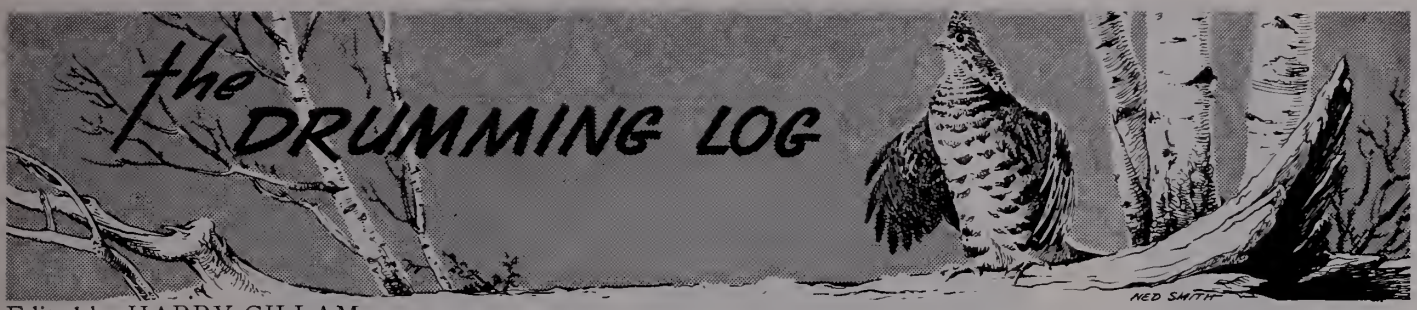
HERMAN R. NEWCOMB
Gloucester County Game Warden

One of the newest members of the game warden force, Herman Newcomb was born in Lunenburg County near Keysville, Virginia. The son of a tobacco farmer, he was raised in the rural atmosphere which was to eventually influence his choice of employment as a warden.

Mr. Newcomb graduated from Victoria High School in Victoria, Virginia, and shortly thereafter married his school sweetheart, the former Arlene Morris of that city. For about three years he worked with his father on the tobacco farm and then took a job with a textile firm in Drakesville, Virginia, as a section foreman in the Quilling operation. He later worked for the same company in Clarksville, Virginia, in the Sample Design department. It was at this time that he learned of openings in the game warden force, was accepted for employment in January of 1972 and assigned to duty in the Gloucester area.

The Newcombs have two children, and they make their home in the Belroi community near the town of Gloucester and near the birthplace of Walter Reed, the famous army surgeon.





Edited by HARRY GILLAM

Bonus Scaup Limit

David P. Chance, left, Peter Trexler, and Robert W. Pitchford, all employees of the State Water Control Board, demonstrate what a bonus limit of scaup looks like after an exceptionally good hunt.

Understanding Africa

A series of four wildlife conservation safaris are scheduled to take place in 1973 under the broad sponsorship of Friends of Africa in America and the U.N. On these diplomatic missions, concerned Americans and Canadians will be escorted to East Africa where they will see African game at its best and be briefed by game officials and other knowledgeable persons who understand the ecology and social pressures of East Africa. These tours will reinforce the endeavors of the new Environmental Secretariat at Nairobi. It is hoped that participants will voluntarily assist upon their return in spreading the word about true conditions in African game country and furthering environmental preservation and accord between peoples.

Itineraries are exceptional including off-beaten-path excursions and privileged meetings with officials and other citizens of the countries visited. In addition to the more popular game parks in Kenya, Tanzania, and Uganda, groups will visit areas in Zaire and Ruwanda. Applicants must have a significant interest in game and its preservation and be willing, with help, to help carry this message to fellow Americans. Departure dates extend from June through December. Nominal all-expense fees for the group travel are $1715 for three weeks, $1395 for two weeks. Being diplomatic missions, these tours offer certain tax advantages. For details, write Friends of Africa in America, 330 S. Broadway, Tarrytown, N.Y. 10591.

Canoeing Guidebooks Feature Virginia Rivers

A series of canoeing trips labeled "Blue Ridge Voyages" has been published by Louis J. Matacia and Roger Corbett. The one-day package trips described are all within 150-160 miles of the Washington, D. C., area. Volume 1 includes trips on the Shenandoah, the Potomac and the Rappahannock, while Volume 2 emphasizes West Virginia streams plus trips on Cedar Creek and the Potomac River. Volume 3 is devoted mostly to Virginia, including the Hughes River, the Shenandoah, Goose Creek, Passage Creek, the Rappahannock and the North and South Anna Rivers. The profusely illustrated text includes maps along with detailed descriptions of the water and scenery to be encountered, plus suggestions on how to negotiate rough stretches.

Volume 4 is devoted entirely to the South Fork of the Shenandoah, the main Shenandoah, and their tributaries. Starting above Waynesboro, the narrative follows the river downstream some 200 miles to Harper's Ferry. Access points for getting on and off the river, rapids, dams, and danger points are described in the text and located on maps. Points of interest described include old mills, early Indian fish dams, battle sites, and locations of industries.

The guides are useful for float fishermen, scouts and leaders of youth groups in addition to the dedicated canoeist. They sell for $3 each, postpaid. Mail check or other remittance to Louis J. Matacia, 2700 Gallows Road, Vienna, Va. 22180.

Saltwater Fishing License to be Discussed

Will a saltwater fishing license system for Maryland, Delaware, Virginia, and New Jersey soon be necessary? Sport fishermen will have a chance to hear expert opinions on the question at a free public forum and exposition in Ocean City, Maryland, April 7 and 8.

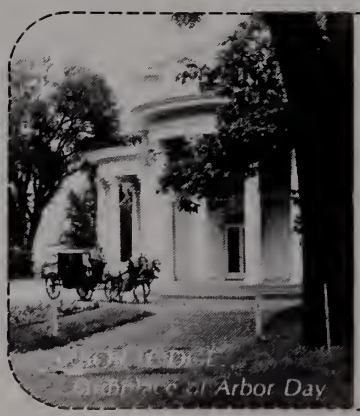
In a panel session under the leadership of Richard H. Stroud, Executive Vice President of the Sport Fishing Institute, state officials, outdoor writers, and fishermen will express their opinions on this controversial issue and submit to questioning from the audience.

SPORT FISHING '73 is open to everyone interested in saltwater fishing and the ocean environment. It is sponsored by the Delmarva Advisory Council, NOAA/National Marine Fisheries Service of the Department of Commerce and the states of Delaware, Maryland, Virginia and New Jersey. There will be no admission charge, but early arrival is essential as attendance will be limited to the capacity of Convention Hall.

In addition to panel sessions, an exposition featuring fishing and boating equipment, casting demonstrations and a fishing film festival will be held.

try to say TREES without smiling

ARBOR DAY
Trees a joy forever
TM



bring joy to your little corner of the world...

Plant a tree for tomorrow!

For details, write:

The National Arbor Day Foundation
Box 100 Arbor Lodge
Nebraska City, Nebraska 68410

Saying "Trees" will bring a smile to your face. Even if you try not to smile. Seeing trees. Climbing in them (if you're a kid). Using them or just enjoying them, trees bring a lasting satisfaction. On Arbor Day...the Conservationist's Holiday, bring joy to your little corner of the world. Plant a tree for tomorrow. You'll be glad you did.

Trees... a joy forever

- **they provide us with shelter**
- **keep the air pure**
- **make life so much better**

Edited by ANN PILCHER

The Arbor Day Foundation

Mrs. Richard M. Nixon
Honorary Chairman

Stewart Udall, Chairman
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National Arbor Day Foundation

Edward Cliff, Retired Chief
U. S. Forest Service
Chairman, Arbor Day Resource Committee

The Arbor Day Foundation, a non-profit corporation overseen by a national board of trustees selected from conservation and business leaders from throughout the United States has been organized to . . .

- Properly and officially recognize Arbor Day and the anniversary of this international celebration each year . . .
- Create an awareness and appreciation among all peoples through all forms of communication of the fundamental role that trees play in man's day-to-day existence . . .
- Endorse, support, or otherwise implement education programs that will stimulate and inspire youth to better understand the bounty and the joy of trees . . .
- Recognize achievement among all elements of society through an annual Awards Program for contributions made to the understanding, appreciation, conservation and wise use of this renewable natural resource . . .
- Initiate programs that encourage the planting of trees and endorse those resource management efforts that will assure the perpetuation and growing abundance of this basic resource . . .
- Establish and maintain an International Resource and Historical Center at Nebraska City, Nebraska, the birthplace of Arbor Day, as a proper repository of all information and education materials related to trees as well as those pertinent mementos of historical significance to ever preserve man's heritage of trees . . .
- Raise and collect funds through gifts, contributions and other appropriate funding programs for the continuing support of the projects and activities of the Foundation as established by the Board of Trustees. Donations to the Arbor Day Foundation are deductible by donors as provided in Section 170 of the Internal Revenue Code.

Arbor Day 1973: April 27

Rockingham Food Patch Winners Chosen

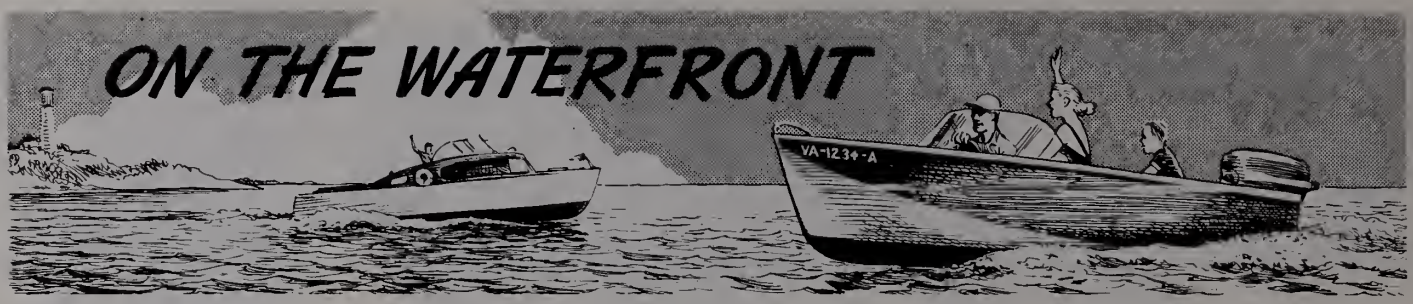
Winners in the game farm food patch contest sponsored by Zone 3 Ruritan Clubs include Broadway High School FFA chapter members Jeff Lam (*1st place*—$25—Mayland area patch), Gary Thompson (*2nd prize*—$10—Mountain Valley area patch), and Dennis Dove (*3rd prize*—$5—patch near Concord Church).

Competing patches—planted with Game Commission-donated seed by FFA members on farms in northern Rockingham County—were judged by Game Warden Area Leader Jesse K. Updike and Game Refuge Supervisor Gordon Souder.

In addition to seed planted by patch competitors, several hundred pounds of farm game seed were also planted by young farmers' groups and by individual farmers and landowners throughout the county.

Mother/Daughter Catches

Mrs. Avon R. Blevins of Fairfax displays her string of trout taken from Eagles Pond at Whitetop, Virginia. Fifteen-year-old daughter Patty holds a rainbow measuring 22¾ inches long. The 4 lb. 3 oz. lunker struck Patty's rooster tail lure on spinning gear, and though lacking just 13 ounces of qualifying for a Virginia Freshwater Fish Citation, will make a handsome wall mount.



Edited by JIM KERRICK

Photo courtesy Defense General Supply Center

Air Force Brigadier General James D. Kemp, Commander, Defense General Supply Center, Richmond, displays a plaque received from Thomas T. Huband (right), Captain, Division 111, United States Coast Guard Auxiliary, for three years of outstanding support of the Coast Guard Auxiliary, a volunteer organization which provides public education courses on boating. In addition, Auxiliary personnel conduct courtesy motorboat examinations, assist in search and rescue operations, and patrol regattas in the name of safety. Looking on is Colonel William O. Antozzi, Commander, Flotilla 32, Southside Virginia.

Sailing: Old Way to Enjoy New Life

Just as Virginia found out about the cheery old man with the white beard, people are rediscovering an old way to enjoy a new life.

It's the rebirth of sailing.

The burgeoning popularity of sailing is complex yet simple. There are many reasons sailing is taking the place of bingo, gin rummy, movie-going and trips to the local pub. Sailing is the new escape from the fat-cat luxury of everyday living, watching the boob tube.

Ripping through the water, eyes squinting from the warm glare of the sun, the wind "breezing" against your face, clean air sucked deep into your lungs, this is sailing.

It's the getaway from the crowded subways, the annoying blares of taxi horns, the ominous orange-tinted air that clings to the tops of tall buildings, the shattering roar of jets.

Sailing is the Mystic River in Connecticut, a mountain lake in West Virginia, the blue expanse of the Gulf of Mexico, and Virginia's Chesapeake Bay.

It's something alone when you want to be; friendly when with people you like; tender with someone close.

Sailing is adventure, science, fun. Sailing is for everyone: young boys and girls piloting a 12-foot daysailer past a skipper navigating his 35-foot yacht.

Sailing is a few lessons and some practical application against the vagaries of the wind and water, the making of a modern-day John Paul Jones.

It's as easy as a volley in tennis, chipping from 15 yards off the green, hitting a jump shot from the corner.

It's practice and memory. Practice what you've learned, remembering the rights and wrongs. It's knowing which way the wind is blowing; just like a dress fitter who has to cut the garment to fit the curves, a sailor must trim his sails to fit the ride. Sailing is a combination of riding to the warm melodious sounds of a 30-piece orchestra and cold facts of physics.

The application of riding the wind is similar to riding a horse. Whether you wish your mount to canter, gallop, or trot is how you handle the reins. In sailing it's controlling the sheet.

Piloting a sailboat is teamwork with the wind. You don't always have to ride downwind to get where you want to go. It's possible to sail against the wind by placing the sails at about 45 degrees from the wind. Science gains control and through the combination of wind force on the sail's windward side and the pull of a vacuum on the other, the result is movement: a concerto of action.

Sailing is not just leisure crawling through water. By cutting across the wind, or reaching, maximum pressures work simultaneously. You have a boat moving as quickly as a frantic 15-year-old girl running home an hour late from her first date.

Sailing is science—the science of displacement, which is a relationship of resistance force needed to be overcome in order for movement. When wind overwhelms resistance, the trip begins, the music plays.

There are many parts to make the whole. A keel, the protrusion at the bottom of the hull, prevents wavering to the side. Steering is controlled by the rudder at the rear of the boat. Sails and wind provide the acceleration.

Sailing is a composition of scientific laws, man and nature. It's up to you to create a masterpiece.

Bird of the Month:

Long-billed Marsh Wren

By JOHN W. TAYLOR
Edgewater, Maryland

ALL birds live active, intense lives. They must in order to sustain themselves, to keep pace with a high rate of metabolism and to maintain a body temperature that is normally 104 to 112 degrees. The search for food alone expends a great deal of energy, since most birds daily eat more than their own weight.

The wrens are an especially active clan, all of them, with far more to do than there is time for. And when there is no work to do, they invent jobs. The long-billed marsh wren will, for instance, build a number of extra nests, seemingly to no purpose other than as an outlet for its superabundant vitality. Possibly they are used as sleeping quarters or to decoy predators, but it would hardly seem necessary to have so many. (One marsh wren was seen to build eight of these dummy nests.)

These structures are large and complex for such small birds. Carefully woven out of the leaves and stems of marsh plants, they are about the size of a hornet's nest, with a small entrance hole at the side. The occupied nest is lined with soft materials, the down from last year's cattails being a favorite choice. This explains in part the long-bill's fondness for cattail marshes, though they are equally at home in needle rush, phragmites and bulrush—or any marsh type with plants capable of supporting nests. During the colder months they like the protection afforded by the big cordgrass that grows chiefly in brackish waters.

These wintering birds are silent and furtive, behaving quite unlike they do during the courtship and nesting period. Then they are noisy and conspicuous, boldly scolding intruders, chasing other birds and scuffling with rivals. When not otherwise engaged, they are bubbling over with song, a rippling, gurgling outburst that seems more of a spasm than a vocalization. So ecstatic are they that the whole body quivers with emotion and at times the force of the melody lifts them into the air, where they hang briefly in curious hovering flight.

The long-billed marsh wren can be identified by its habitat alone, and a wren seen in tall marsh grass or cattails is likely to be this species. The short-billed marsh wren is a bird of low, wet meadows and short grass marshes. It does not have the white stripe over the eye, so noticeable in the long-bill. Instead, the head is a uniform buffy color, lightly marked.

ALWAYS REMEMBER THAT BIG ONE

with a

VIRGINIA WILDLIFE TROPHY FISH CITATION . . .

1973 CITATION SIZES

Largemouth Boss	8 lbs.
Smallmouth Bass	4 lbs.
Kentucky Boss	3 lbs.
Sunfish	1 lb.
Rock Boss	1 lb.
White Bass	2 lbs.
White Perch	1 lb.
Croppie	2½ lbs.
Striped Boss	10 lbs.
Pickerel	4 lbs.
Walleye	8 lbs.
Yellow (ring) Perch	1 lb.
Brook or Brown Trout	2 lbs.
Other Trout	5 lbs.
Muskellunge	6 lbs.
Northern Pike	6 lbs.
Chonnel Cot	10 lbs.
Flatheod Cot	20 lbs.
Carp	20 lbs.
Gor	10 lbs.
Grindle	10 lbs.
Coho Solmon	3 lbs.

Fish must be caught in Virginia Waters by legal methods during seasons open for the taking of the species involved.

Fish must be weighed at a public scales that is periodically inspected by the Commonwealth of Virginia.

Photographs are desirable as further proof of authenticity but are not required.

Non-residents as well as residents are eligible for citations if fish are caught under the above conditions.

Applications must be submitted within 60 days of the date of catch to be eligible.

APPLICATION FOR VIRGINIA FRESHWATER FISH CITATION

Angler's Name _____

Address _____

City _____ State _____ Zip _____

Kind of fish _____ Weight ___ lbs. ___oz.; Length ___ inches

Where caught _____ Date caught _____

Weighed at _____ (store or other public scales)

Weighing witnessed by _____, _____
Signature Address

How caught—Fly Rod ☐ Spinning Rod ☐ Casting Rod ☐

Trot Line ☐ Other _____

COMMISSION OF GAME AND INLAND FISHERIES

P. O. BOX 11104 • RICHMOND, VIRGINIA 23230

HOW TO MEASURE: